

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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FEB 27 2004

PUBLIC SERVICE
COMMISSION

In the Matter of:

INVESTIGATION INTO WARREN COUNTY)
WATER DISTRICT'S RATE SCHEDULE FOR)
SERVICES WITH PRIVATE FIRE PROTECTION))
FACILITIES CASE NUMBER 2002-00042)

CASE NO. 2002-00042

This is to certify that the following listed documents were this date hand delivered
to in accordance with the Service List:

Testimony of Fire Chief Gerry Brown

Testimony of John B. Corsco

Testimony of Jack Reckner

Testimony of Greg Young

Testimony of Ken Meredith

Video Excerpts (2)

This 27th day of February, 2004.


DIXIE R. SATTERFIELD

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TESTIMONY OF FIRE CHIEF GERRY BROWN

1 **Q1 State your name and occupation.**

2 Gerry Brown, Fire Chief for the City of Bowling Green.

3 **Q2 How long have you been the Fire Chief?**

4 A little over six years. I was appointed January 1, 1998.

5 **Q3 Describe your employment history with the Fire Department prior to your**
6 **appointment as Fire Chief.**

7 Firefighter, Firefighter EMT, Driver/Pump Operator, Company Commander,
8 Assistant Chief/Training, Deputy Chief.

9 **Q4 Which of these positions requires knowledge of the principles of pumping**
10 **water or moving water in order to apply it to a fire?**

11 All of them. A firefighter is instructed very early in his or her career in the basics
12 of moving water to supply hose lines, standpipes, and sprinkler systems, etc. This
13 instruction is usually simply termed “hydraulics,” which encompasses the principles of
14 water in motion. In our department, to become a fire apparatus operator* one undergoes
15 competitive written and practical testing covering all the major evolutions we employ to
16 deliver water through hose lines or other devices. Basically, one must be able to
17 construct an above ground water system that delivers an appropriate volume of water to a
18 given point(s) and device(s) at a standard pressure(s). All subsequent ranks utilize this
19 knowledge and ability to carry out tactical operations, or provide training to other
20 firefighters, pertinent to their level of responsibility.

21 *(former job title: driver/pump operator)

22 **Q5 Are there substantial differences in the water systems firefighters create and**
23 **those created by water purveyors to provide water service to their customers?**

1 Obviously a water purveyor's lines are located below ground, for the most part,
2 and firefighters' systems are located above ground. Of course we do not have elevated
3 tanks mounted on our engines to provide pressure. We employ pumps instead, as do
4 water purveyors in certain applications. The properties of water remain constant, as do
5 the principles related to moving it. In essence, both take water from a source and apply
6 pressure sufficient to overcome friction loss to deliver a desired volume at an appropriate
7 pressure to a particular location.

8 **Q6 What is friction loss?**

9 Some of the water in a pipe or fire hose is in contact with the interior surface.
10 Movement of the water creates friction as a result of this contact. Part of the pressure
11 applied at the point of origin is expended in overcoming this friction. Thus, whenever
12 water is in motion through a line, the pressure will be greater at the point of origin than at
13 the point of delivery.

14 **Q7 What means may be applied to overcome friction loss?**

15 Pressure may be increased or larger lines may be employed. Larger lines
16 obviously are capable of carrying a greater volume of water than lines of lesser diameter.
17 They also have proportionately lower friction losses for any given length than smaller
18 lines under the same pressure because proportionately less of the water is in contact with
19 the lines' interior surfaces. Large lines may thus be employed to conserve pressure, or
20 increase the distance a given volume of water may be moved, rather than to deliver a high
21 volume of water.

22 **Q8 How does a fire sprinkler system differ from the system firefighters create?**

1 Other than the facts that most of the lines are located in a building's ceiling/attic
2 space or high in its walls, and that a backflow preventer is utilized to ensure water
3 already in the system cannot flow back into the public water supply, there is no practical
4 difference. As with a firefighting system made up of fire hose, one begins the hydraulic
5 calculations from the nozzle, or sprinkler head in this instance, and works back to the
6 point of supply. The pipes are nothing more than permanently mounted fire hose.
7 Sprinkler heads are simply small firefighting nozzles.

8 **Q9 How is water supplied to a sprinkler system?**

9 There are two basic methods. Water is either supplied through a connection to the
10 public main or by a tank installed by the property owner.

11 **Q10 How is pressure supplied to a sprinkler system?**

12 Pressure is generally supplied at the system's origin through a large pipe directly
13 connected to the water purveyor's main. If the water purveyor cannot provide adequate
14 pressure a pump supplied by the building's owner is employed.

15 **Q11 Provide an overview of structural firefighting and tactics.**

16 I would define strategy as what one seeks to accomplish, the ultimate goal.
17 Tactics are the steps one employs to meet the ultimate goal. The overall strategy of the
18 Bowling Green Fire Department (as with any fire department) is to extinguish structural
19 fires in the safest, most efficient manner possible.

20 Three methods are employed to meet the strategy:

- 21 A) Sprinkler systems
- 22 B) Interior attack
- 23 C) Exterior attack

1 A) Sprinkler systems are the preferred method because they offer the best possible
2 results regarding safety for the occupants of a structure and the firefighters who respond
3 to the fire. By operating while a fire is still in its incipient stages the fire is either quickly
4 extinguished or held in check until firefighters can arrive and complete extinguishment.
5 Extinguishment or containment is achieved in 97% of activations.

6 The vast majority of sprinkler activations require very small commitments of
7 firefighting forces (1 or 2 companies—3 to 8 firefighters) for a short period of time,
8 generally well less than an hour. Firefighters' activities include smoke removal, plugging
9 the activated head to stop the flow of water, and removal of any water from the building.
10 Other than the one head that activated, the rest of the system remains operational in the
11 event of further fires.

12 The level of safety for occupants and firefighters is very high.

13 Fire damage to the structure and its contents is kept to the minimum level
14 achievable.

15 Demand on the public water system is minimal--in fact, unnoticeable in almost
16 every instance.

17 B) Interior attack requires the significant commitment of Fire Department
18 resources. Our minimum response for a routine fire in a small structure is three engine
19 companies, a ladder company, and an assistant chief—15 to 16 members—over half of
20 our available trucks and at least half of our personnel, depending on the number of
21 members on leave for a particular day. Larger structures or those with a high life safety
22 risk require the initial dispatch of at least one additional company. A second structure

1 fire occurring during incidents necessitating an interior attack cannot receive an adequate
2 and timely response.

3 Firefighters are committed to advancing hose lines into the structure which is
4 filled with smoke and other poisonous gas byproducts of combustion. Temperatures
5 range from 1,000 + degrees at the ceiling to 200+ at floor level in the vicinity of the fire.
6 Standing up may be fatal, even with the thousands of dollars worth of protective
7 equipment worn by an individual firefighter. Progressive flashover if the structure has
8 more than one room poses lethal danger. Other significant dangers to firefighters
9 include, but are by no means limited to, burns, floor and/or ceiling collapse,
10 electrocution, and explosions.

11 Other firefighters are assigned to search the structure for victims who are trapped
12 and/or overcome by smoke inhalation. The likelihood of survival for these victims is
13 poor. (My personal experience is, I think, typical of that of most firefighters. I have
14 carried out more deceased victims than survivors.)

15 Additional firefighting personnel are assigned to establish a permanent water
16 supply from a hydrant. Others are employed in an attempt to ventilate smoke and
17 superheated gases from the structure. If the fire extends laterally outside the confines of
18 the building, or is in danger of such extension, and thus threatens exposures (neighboring
19 property) more firefighters must employ hose lines to prevent its spread.

20 Per OSHA regulation, a minimum of two firefighters are assigned to a rapid
21 intervention team (RIT). The sole purpose of this team is to rescue firefighters that may
22 become trapped inside the structure.

1 One fire officer must fill the role of incident commander. The commander's
2 duties include control of all tactical operations, and fireground safety. He or she follows
3 an established tactical priority objectives procedure known by the acronym RECEO
4 (Rescue, Exposures, Confinement, Extinguishment, Overhaul). One firefighter tracks
5 personnel accountability. Depending on the size of the incident and the operations
6 involved, other officers may be assigned specific roles to assist the commander.

7 These operations must be accomplished within an extremely tight timeframe. In
8 the period between the first eruption of open flame and the initial application of sufficient
9 water to begin extinguishment the fire has been doubling in intensity every 20-30
10 seconds. Structural collapse rule of thumb: ten minutes for metal framed buildings,
11 twenty for wooden framed. The incident commander must bear in mind that several of
12 these precious minutes have elapsed during fire department response to the scene and the
13 operations required to extend hose lines into the structure.

14 Total time commitment of fire resources at the incident scene is one hour plus.
15 One to two hours is required after companies return to quarters to reload, perform
16 maintenance on, and clean equipment.

17 Significant damage to the structure and its contents always take place.

18 Impact on the public water supply is usually limited to the quantity of water
19 available from one hydrant, although this may be greater, depending on the size of the
20 fire, the building involved, the exposures threatened, and the water supply available from
21 a particular hydrant.

22 Other direct impacts must also be considered. These include:

23 1) EMS response

- 1 2) Police response
- 2 3) Utilities response (electric and gas, though seldom water)
- 3 4) Street closures
- 4 5) Some air and groundwater pollution
- 5 6) Reduction in capabilities of all emergency response agencies to
- 6 meet other emergencies, which can and sometimes does lead to tragic
- 7 consequences at otherwise unrelated incidents
- 8 7) If the fire is in a business, the business may be, literally, out of
- 9 business, with the elimination of jobs, as well as tax revenue for all levels of
- 10 government.

11 C) Exterior attack must be employed if an interior attack fails or the fire is at such
12 an advanced stage upon the arrival of the Fire Department an interior attack is not
13 possible. In firefighter parlance this is more commonly known as “surround and drown.”

14 This method of extinguishment requires large volumes of water from the public
15 water supply. Basically, we use all the water we can obtain and apply it as fast as
16 possible for as long as it takes to complete extinguishment. Depending on the size of the
17 structure and the difficulties involved in directing hose streams on the flames (building
18 collapse hinders direct application of water on the fire, or precludes it altogether) this
19 may last for many hours. Exposure protection is a paramount concern.

20 Any occupant not rescued *before* the implementation of this method is dead.
21 Dangers to firefighters are not as great as with an interior attack, but are still significant.
22 Operation of large caliber streams is in itself a dangerous activity. Walls collapsing
23 outward and contact with downed power lines are major concerns.

1 Incident command tasks now *require* several personnel and an elaborate
2 command structure that includes representatives of other agencies.

3 Impacts, in addition to those listed for interior attack, which are each now greater,
4 include the call-in of off duty firefighters and the utilization of vast quantities of the
5 firefighting apparatus and equipment possessed by the fire department (for the Bowling
6 Green Fire Department, basically everything we have). Mutual aid from neighboring
7 departments, particularly if the structure encompasses more than a few thousand square
8 feet, may have to be requested, with a resulting lowering of available fire protection
9 throughout the adjoining area.

10 Significant air and groundwater pollution are a certainty.

11 The structure is destroyed or severely damaged. Again, if the structure is a
12 business, jobs and tax revenue will be lost.

13 **Q12 Given that sprinkler systems are inarguably the most common sense**
14 **approach to combating fires in structures, what steps are you aware of that**
15 **government at any level has taken to support the installations of sprinkler systems?**

16 Codes requiring the installation of sprinkler systems in structures of certain sizes
17 and occupancy types are the most widespread method. These codes may be adopted and
18 enforced at either the state or local level.

19 It is important to note that codes are built upon recognition of historical
20 experience (tragic fires), and that they have the practical effect of reducing what would
21 otherwise be routine extraordinary demands upon the fire department and the water
22 purveyor. In fact, inability to meet these demands at actual incidents is why the codes
23 were created.

1 A number of communities across the country have instituted mandatory sprinkler
2 system ordinances for all new structures. Scottsdale, Arizona is probably the single most
3 cited example, primarily because an extensive report has been published on the success of
4 its program. A number of other communities have instituted programs to encourage the
5 voluntary installation of systems through tax incentives, building permit discounts, and
6 other measures that provide direct economic benefits. Some cities accurately reflect the
7 positive impact of sprinkler systems by requiring a higher water service rate for
8 properties *not* protected by sprinkler systems. Extensive source material on such
9 proactive efforts may be obtained from the United States Fire Administration, the
10 National Fire Protection Association, and the National Fire Sprinkler Association, among
11 others.

12 The Kentucky Public Service Commission investigation into fees for private fire
13 protection (instituted in response to a complaint filed by the Kentucky Association of Fire
14 Chiefs) contains much pertinent information, including sprinkler system design
15 considerations and water supply requirements for sprinkler systems.

16 Again in Kentucky, an innovative law was enacted several years ago that
17 recognizes the positive impacts of sprinkler systems and requires that insurance
18 companies recognize this impact in their premiums for property coverage. This law
19 follows:

20 **KRS 304.20-380 Premium credit or discount provision for buildings**
21 **equipped with an automatic sprinkler system.**

22 **Every property insurer, as defined in this chapter, authorized to do**
23 **business in this state shall include a premium credit or discount provision in**

1 **its rates filed with the commissioner for buildings equipped with an**
2 **automatic sprinkler system. The amount of the discount shall reflect the cost**
3 **savings the insurer expects to realize in insuring property equipped with**
4 **automatic sprinkler systems.**

5 HR 1824, a bill currently pending in Congress, provides for accelerated
6 depreciation (5 years) of costs related to installation of automatic sprinkler systems.
7 This tax incentive promises to be a tremendous tool for fire departments in encouraging
8 systems installations.

9 The Federal Emergency Management Agency through its Assistance to
10 Firefighters Program encourages systems installation. Bowling Green recently received
11 notification of the award of a grant through this program to install sprinklers in three fire
12 stations. Louisville is receiving funds through the same program to install sprinklers in
13 four fire stations.

14 Numerous federal studies and conferences have supported and encouraged the
15 installation of sprinkler systems. Citations from one of the more comprehensive federal
16 fire conferences follow:

17 **All large fires start from small ones, for which reason it is important**
18 **that fires be discovered and attacked in their incipency. When they reach**
19 **such proportions that it becomes necessary to use heavy hose streams for**
20 **extinguishment, some fundamental measure for fire prevention and control**
21 **has been omitted or has not been effectively utilized.**

22 **Automatic sprinkler protection has a long proven record for**
23 **controlling fires in their incipency, for limiting property loss, conserving**

1 water supplies, and preventing loss of the lives of occupants of buildings and
2 of firemen in fighting fires.

3 The modern sprinkler system is equipped with an automatic alarm,
4 actuated by the flow of water through the pipes. Thus a sprinkler system
5 serves three purposes. It discovers the fire, applies water promptly, and
6 sounds an alarm.

7 The governmental authorities, as well as the water department
8 operators, whether public or private, have an obligation to the community to
9 maintain adequate water supplies and pressures for firefighting service.

10 Excessive charges made by some water departments for the use
11 of public water for automatic sprinklers and other private fire protection
12 have discouraged the installation of such protection. They fear that water
13 from fire protection systems will be wasted or used for domestic purposes.
14 Such fears are for the most part unfounded. Automatic sprinklers actually
15 conserve water supplies, since they attack the fire in its incipency.... The
16 public fire departments must invariably use much larger quantities of water
17 for extinguishment.

18 If public officials were better informed as to the function and
19 operation of private protection, they would do more to encourage public
20 water connections for fire service.

21 **RECOMMENDATIONS**

22 ...aggressive action be taken to accelerate the installation of automatic fire
23 protection in new and existing buildings...

1 **Public water. –**

2 **2. Excessive costs for private fire service connections should be**
3 **avoided.**

4 These are a few examples. A comprehensive listing would require several large volumes.

5 **Q13 What was the title of the federal conference cited so extensively above?**

6 *The President's Conference on Fire Prevention, Report of Committee on Firefighting*
7 *Services, May 6, 7, and 8, 1947.*

8 (It is worthy of note that President Truman not only commissioned this conference, he
9 also participated. The Courier Journal reported in July of 1947 on a directly related fire
10 conference: "The Kentucky meeting, called by Governor Simeon Willis, is believed to
11 be the first in the country called in co-operation with the national program of fire
12 prevention inaugurated by President Truman.")

13 **Q14 Provide a firefighter's definition of water.**

14 Ammunition. (To define water utilized by the fire department in the protection of
15 lives and property as a commodity is neither accurate nor in the interest of public safety.)

16 **Q15: What is the quantity of water used for firefighting by the Bowling Green Fire**
17 **Department during 2003 that was withdrawn from the Warren County Water**
18 **District system?**

19 Six thousand gallons. (Or approximately .003 per cent of the quantity WCWD
20 reported lost in leaks in 2002; or what WCWD loses in leaks every 15 minutes.)

21 **Q16 Of the 6,000 gallons noted in the answer to Question 15, what quantity was**
22 **applied through sprinkler systems?**

1 Zero.

2 **Q17 What was the total of charges applied to customers with private fire**
3 **protection by the Warren County Water District in Bowling Green for 2003?**

4 It is my understanding that the Warren County Water District received
5 \$177,236.64.

6 **Q18 The American Water Work Association (AWWA) states ½ to 1% of water**
7 **may be assigned to firefighting for all application methods. Does this percentage**
8 **reflect actual usage for Bowling Green?**

9 No. I understand the difficulties inherent in the attempt of AWWA to assign a
10 figure for peak firefighting demand, or the attempt to determine firefighting demand at
11 any level, for that matter, since these are such small numbers in relation to that
12 distributed by a water purveyor. Determining such an assignment poses difficulty it
13 appears for any entity. The percentage assigned is grossly exaggerated compared to
14 actual historical experience. It is the equivalent of the demand placed for fighting a
15 major structural fire each and every day of the year in my community. In my
16 professional opinion, any community that utilizes even ½ % of its available water for
17 firefighting will not have to do so for very long. Only the buildings with sprinkler
18 systems will be left standing.

19 **Question 19 What is the percentage of water utilized by sprinkler systems**
20 **in firefighting compared to the quantity of water utilized in other application**
21 **methods?**

22 Sprinkler systems utilize 10% of the water utilized by other application
23 methods. It may be considerably less, depending upon the size of a particular fire

1 in a non-sprinklered building and the methods employed that are necessary to
2 extinguish it.

3 **Q20 How does the National Fire Protection Association address charges**
4 **for fire protection systems?**

5 The *National Fire Protection Association Fire Protection Handbook, 19th edition*
6 states, “Annual charges for connections to fire protection systems are often established in
7 water rate schedules for the sole purpose of obtaining additional revenue.”

8 **Q21 How do the charges imposed on private fire protection influence efforts to**
9 **encourage the voluntary installation of sprinkler systems?**

10 They all but destroy such efforts. I am aware of only two buildings in Bowling
11 Green located in the Warren County Water District with sprinklers that were not required
12 to have such systems by code, and one of the two is a Bowling Green fire station.

13 As much as I (and any fire protection professional) would desire that building
14 owners voluntarily install these systems based solely in the interest of safety, that will
15 never come about to any appreciable degree. It is a simple matter of economics. An
16 owner may usually recover the cost of a sprinkler system in 7—10 years through
17 insurance premium reductions. Reductions in construction costs may also be realized, for
18 the codes are not nearly as stringent when the building is equipped with a sprinkler
19 system.

20 With charges imposed, however, especially at the current rates, and even those
21 envisioned by the PSC, the installation costs may never be recovered. The economic
22 incentive no longer exists. In its place is the ongoing economic disincentive of charges

1 imposed by the Warren County Water District, with the additional and constant concern
2 that these charges may be increased at some point(s) in the future.

3 Without charges the building owner may make a decision based on economic
4 benefit. This will result in more buildings being voluntarily equipped with sprinkler
5 systems where such systems are not required by code, such as is the case with the Warren
6 County Water District's office building.

7 I applaud the Warren County Water District for installing a sprinkler system in its
8 building. By doing so it has reduced the fire protection burden on the community as a
9 whole and practically eliminated safety concerns for firefighters in the event there is a
10 fire. This serves as an excellent example of fire protection common sense for other
11 building owners.

12 This action does raise the question, however, of whether the Warren County
13 Water District would have elected to install a sprinkler system in its building had it been
14 subject to the same charges, the same disincentives, it imposes on its customers for
15 similar protection. Perhaps the tragic fire in 1996—the worst ever in Bowling Green—in
16 which four people died and over a dozen were injured, was impetus enough for it to do
17 the right thing. After all, this terrible blaze took place on the exact site where the Warren
18 County Water District office building now stands.

19 **Q22 If there were no charges for private fire protection, would private fire**
20 **protection be subsidized at the expense of other ratepayers?**

21 No. This argument is without logic and appears to be solely predicated on efforts
22 to protect a source of revenue for the water purveyor. In fact, the customer with private
23 fire protection is subsidizing the customer with only public fire protection.

1 First, let us take a look at sprinkler systems and how they are supplied. In the
2 answer to Question 9 we find that sprinkler systems are supplied either from a public
3 water main or from a storage tank installed by the property owner at his or her expense.

4 In instances where a public water main is utilized the property owner uses the
5 same water for fire protection that is available for fire protection from a hydrant located
6 on that same main. There is no *new water* or *additional water* involved.

7 The water from the public main is available to the fire department for fire
8 protection without restriction as to how the fire department elects to apply it to a fire.
9 Whether the fire department applies it through a sprinkler system required by code or
10 whether that sprinkler system was installed voluntarily makes no difference. The
11 sprinkler system still exists solely for use by the fire department for the extinguishment of
12 fires. As noted in the answer to Question 8, the pipes in a sprinkler system are simply
13 permanently mounted fire hose and the sprinkler heads are simply permanently mounted
14 small firefighting nozzles. For all intents and purposes, a sprinkler system is part of the
15 fire department's fire protection infrastructure.

16 A portion of the property owner's monthly bill from the water purveyor for
17 domestic use covers the costs of water for public fire protection. The property owner,
18 therefore, is already paying any and all of his allocated fire protection costs. Forcing the
19 property owner to pay again for this water simply because it is applied through a
20 sprinkler system defies common sense. This is double billing.

21 One must keep in mind that the property owner has paid all expenses associated
22 with installation of the sprinkler system, including in some cases a tap into the public
23 main for a separate line dedicated to the system. Costs associated with maintenance,

1 inspection, and replacement of the tap remain the responsibility of the owner, although I
2 am somewhat perplexed as to any costs associated with inspection as I was not aware that
3 a hole was routinely dug down to this device to determine if it was leaking. Again, all
4 this effort and expense on the part of the property owner was to obtain water that was
5 otherwise available to him or her for fire protection from a public hydrant located on a
6 public main.

7 It is also important that one keep in mind that in the event a fire does occur, the
8 water utilized in its suppression will be no more than one tenth of that expended from a
9 public hydrant were the sprinkler system not in place. In this manner, the owner of a
10 building with a sprinkler system is actually subsidizing the fire protection of all
11 properties that are not equipped with such systems (and that have water readily available
12 from a public hydrant on a public main) through lowering the fire protection demand that
13 would otherwise exist.

14 In installations where either the volume of water or pressure from the public main
15 is inadequate for a sprinkler system the property owner installs a tank or pump at his or
16 her expense. If the property owner fills the tank from a connection to the public main he
17 pays for the water at the general ratepayer level. As with the supply directly to the
18 sprinkler system from a public main, the water purveyor is not required to upgrade its
19 infrastructure in any manner.

20 Ongoing charges placed on property owners for fire hydrants located on water
21 mains on private property are also questionable as these devices are available for public
22 fire protection. It makes no difference to the fire department whether a particular fire
23 hydrant is located on a public or private main. They can be and are used to provide water

1 for firefighting on adjacent public roadways, for neighboring structures, and for fires
2 located at distance from the properties on which they are situated. By providing for the
3 installation of fire hydrants the property owner has increased and extended the fire
4 protection infrastructure available to the public at large, at his or her expense.

5 The only cost to the water purveyor that merits consideration is for the water
6 expended in annual testing.

7 During the informal conference at the PSC on February 19 a representative of the
8 Warren County Water District made a statement to the effect that customers in rural areas
9 that do not have fire protection should not be expected to subsidize private fire
10 protection. I agree completely. Neither should they be expected to subsidize those
11 customers who have public fire protection readily available through hydrants on public
12 mains. If these customers without fire protection are paying for public fire protection as
13 part of their monthly bill this subsidy practice should cease at once.

14 Of course, if one employed the formula utilized to date, with those placing the
15 greatest burden on fire protection paying a nominal fee as part of their monthly water bill,
16 and those who have reduced the burden significantly by installing sprinkler systems
17 paying this fee, plus a much higher additional fee, then those who place no burden
18 whatsoever should pay the most of all. What would be appropriate?

19 **Q23 Do meters in fire protection lines supplying sprinkler systems jeopardize the**
20 **proper functioning of these systems?**

21 Yes. On July 30, 2003 at the informal conference before the PSC a representative
22 of the Warren County Water District conducted a power point presentation that depicted
23 several components related to a sprinkler system. Photographs of these various

1 components included several that were the responsibility of the property owner to
2 provide. An eight-inch meter (which rivals the aggregate size of the two men beside it)
3 was one component shown (pg. 7, lower right hand corner). Part of the presentation
4 concerned the need to collect revenues so that replacement costs could be addressed.

5 The word “replacement” gives me grave concern. One does not replace a device,
6 especially one that costs \$8,650, unless the device has failed or is subject to imminent
7 failure. I know what the failure rate is for sprinkler heads: one in 16 million. No one has
8 ever taken the trouble to inform the fire department what the failure rate is for these cast
9 iron behemoths. No one has to. “Replacement” is explanation enough. This meter, as
10 the photograph reveals, is located in the sprinkler system supply line. Its failure will
11 jeopardize the proper functioning of the system, with catastrophic consequences a likely
12 result. Although the liability associated with failure is the concern of the Warren County
13 Water District, the resulting compromise of the sprinkler system is mine, as fire chief.
14 Meters are a dangerous addition to sprinkler system supply lines – a needless
15 complication, and should not be employed. It is a simple matter to accurately calculate
16 water flow through a sprinkler system, anyway, should it activate.

17 **Q24: What is the fundamental question in the issue of charges for private fire**
18 **protection?**

19 Which entity is responsible for firefighting strategy--the fire department or the
20 water purveyor?

21 (This is a basic Homeland security issue.)

22 **Q25 What results are inevitable if charges on private fire protection are left in**
23 **place?**

1 Because some buildings will be voluntarily equipped with sprinkler systems that
2 would not be otherwise if the charges are eliminated, retention of the charges will
3 preclude such actions. Risks that could have been eliminated will, therefore, remain. I
4 cannot predict when fires will occur, but I can predict with certainty that they will occur.
5 When they do lives and property will be placed in grave danger and the loss of either or
6 both will result.

7 **Q26 Is there statutory authority that provides the answer to the fundamental**
8 **question?**

9 Yes. KRS 95.500 is the governing statute. The appropriate section of this statute
10 follows:

11 **KRS 95.500 Powers and duties of chief of fire department, Section (2):**

12 **The chief shall direct and control the operations of the members of the**
13 **fire department in the discharge of their duties. He shall have access to and**
14 **use of all cisterns, fireplugs, the waters of the waterworks, and the cisterns of**
15 **private persons, for the purpose of extinguishing fires. He shall have the**
16 **right to examine all cisterns, and all plugs and pipes of the waterworks, to see**
17 **that they are in condition for use in case of fire. He shall have control of all**
18 **buildings, hose, engines, and other equipment provided for the fire**
19 **department. He shall perform such other duties as the legislative body shall,**
20 **by ordinance, prescribe.**

21 **Q27: What are the key elements of this statute relative to the fundamental**
22 **question?**

23 “Access to and use” of water “for the purpose of extinguishing fires.”

1 “He (chief of the fire department) shall have control of all buildings, hose,
2 engines, and other equipment provided for the fire department.”

3 **Q28 How do these elements apply to the fundamental question?**

4 Water is the fire chief’s when it is used for the purpose of extinguishing fires.
5 Charging someone else for water the General Assembly has decreed is the fire chief’s to
6 use defies logic. Absent statutory instruction, the fire chief has discretion to utilize this
7 water for firefighting in the manner he or she deems most appropriate.

8 Sprinkler systems meet the “other equipment provided for the fire department”
9 definition. Such systems exist for no other purpose than extinguishing fires. The fire
10 chief has “control” of this “other equipment.” In exercising “control” the fire chief is the
11 authority on whether or not meters may be installed in any section of pipe supplying the
12 chief’s water to a sprinkler system extending from the tap in the public main to any and
13 all individual sprinkler heads.

14 **Q29 Is there anything else you wish to add that is pertinent to the issue?**


15 Yes. This difference in philosophies has gone on long enough, to the detriment of
16 the community. If the water purveyor is interested in conserving water, then a
17 cooperative effort between it and the Bowling Green Fire Department can easily be
18 created that will lead to that result and render the community and its firefighters safer in
19 the process. This department desires to be a partner in such an effort.

20 If the water purveyor, however, seeks to cling to a source of revenue that results
21 in endangering public safety—a source without foundation—this department will
22 continue to voice its opposition. The fire department cannot do otherwise and remain
23 true to its mission of protecting lives and property.

1 The issue before us is not complicated. Indeed, it may be resolved by the simple
2 application of common sense to the ultimate benefit of all the parties involved. To
3 paraphrase President Truman, most people know the right thing to do. Its getting them to
4 do it – that’s the problem. Let us join together to do what is right.

5 **Q30 Does that conclude your testimony?**

Yes.

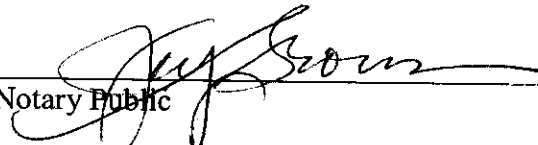


Gerry Brown

COMMONWEALTH OF KENTUCKY)

COUNTY OF Warren)

Subscribed and sworn before me by Gerry Brown, this February 25th, 2004.



Notary Public

My Commission Expires:

11-24-07

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

FEB 27 2004

In the Matter of:

**PUBLIC SERVICE
COMMISSION**

INVESTIGATION INTO WARREN COUNTY)
WATER DISTRICT'S RATE SCHEDULE FOR)
SERVICES WITH PRIVATE FIRE PROTECTION)
FACILITIES

CASE NO. 2002-00042

TESTIMONY OF JOHN B. CORSO

1 **Q1 Please give your name and describe your experience in fire protection.**

2 JOHN B. CORSO, 2538 Trevilian Way, Louisville, Kentucky, 40205,
3 (502) 458-8688 (Office), (502) 458-1284 (Home)

4 **QUALIFICATIONS**

- 5 ▪ Effective leadership of a large urban fire/EMS department with 730
6 personnel serving a jurisdiction of 300,000 through various positions with
7 increasing leadership and command responsibilities, including Fire Chief.
- 8 ▪ Successful management of budgets up to \$40 million annually, including
9 the fiscal management of departmental properties and equipment with an
10 assessed value of approximately \$500 million.
- 11 ▪ Effective organizational, communication and instructional skills applied in
12 educational program delivery and development for public education,
13 professional development and college credit programs offered nationally
14 and internationally.
- 15 ▪ Demonstrated expertise in public sector management, supervision and
16 human resource development.
- 17 ▪ Finely honed logistical, problem solving, strategic planning and program
18 implementation skills.

19 **EMPLOYMENT HISTORY**

20 National Fire Sprinkler Association: January 1999 - Current

21 National Training Manager, National Fire Sprinkler Association - Current

- 22 ▪ Develop, update and deliver professional development seminars to explain, promote
23 and reinforce the installation and maintenance of fire sprinkler systems as specified in

1 nationally recognized and approved fire safety and building codes and requirements;
2 nationally and internationally.

3 ■ Manage seminars as requested and scheduled by Regional and International Managers
4 within the National Fire Sprinkler Association.

5 ■ Initiate new seminar content through needs identified and anticipated for fire safety
6 and related building codes.

7 ■ Serve as organizational liaison to the Metro Section of the International Association
8 of Fire Chiefs

9 Regional Manager January - December 1999

10 ■ Initiated and organized regional training programs on fire sprinkler installation for
11 fire and building officials, architects and other professionals within the fire sprinkler
12 industry.

13 ■ Developed and implemented strategies to provide the first regularly scheduled, on-
14 site liaison and technical services for fire sprinkler education, maintenance and
15 installation specifically for the southeastern region (North and South Carolina,
16 Alabama, Tennessee, Kentucky, Georgia and Mississippi) of the United States.

17 ■ Promoted expanded use of fire sprinkler systems through technical assistance and
18 testimony related to the initiation and passage of necessary fire code and fire sprinkler
19 legislation.

20 ■ Disseminated regional and national information on fire safety, building and fire codes
21 and training opportunities to fire sprinkler, fire service and building professionals
22 through authorship and dissemination of monthly regional newsletters.

1 Louisville Division of Fire: December 1967 – January 1999

| | |
|--|-------------------------|
| 2 Fire Chief | May 1995 – January 1999 |
| 3 Executive Assistant Chief | June 1991 – May 1995 |
| 4 Assistant Chief: Budget and Personnel | August 1989 – June 1991 |
| 5 Assistant Chief: Personnel | July 1986 – August 1989 |
| 6 District Chief | August 1985 – July 1986 |

- 7 ■ Provided leadership for the Division of Fire including participation in the
8 development and implementation of a long-range strategic plan resulting in the
9 merger of fire and emergency medical services into a single Division of Fire for the
10 city.
- 11 ■ Promoted the enhancement of professional in-service and recruit training through
12 expansion of fire training personnel, incorporation of management and operational
13 specialists as trainers and increased requirements for recruit training.
- 14 ■ Increased and maintained widespread public support for the division through
15 implementation of community service programs at all firehouses within the city.
- 16 ■ Increased representation of women and minorities through expanded recruitment,
17 testing and training programs.
- 18 ■ Promoted professionalism in the fire service through participation in national and
19 international training and educational seminars.
- 20 ■ Participated in the drafting and passage of a fire sprinkler retrofit ordinance for the
21 City of Louisville and provided leadership in implementation and enforcement of the
22 ordinance.

1 **INSTRUCTIONAL EXPERIENCE AND PROFESSIONAL PRESENTATIONS**

- 2 ▪ Lecturer, Department of Justice Administration, University of Louisville: 1998-
- 3 Current
- 4 ▪ Speaker for various workshops and conferences on issues related to fire prevention,
- 5 fire sprinkler installation and regulation and fire service community programs:
- 6 Kentucky State Fire Fighters Conference, National Fire Sprinkler Association
- 7 Conference, New Jersey Fire Safety Division Conference, National Fire Protection
- 8 Association Conference, Region III (East Coast) Training, Resource and Data
- 9 Exchange Meeting, Oklahoma State Fire Chief's Association, Oklahoma State Fire
- 10 School : 1988 - Current
- 11 ▪ Lecturer: The American Fire Service, Fire Service College, Moreton-in-Marsh,
- 12 England: 1995-1996
- 13 ▪ Instructor: Executive Fire Officer Program, Louisville Division of Fire: 1991-99
- 14 ▪ Instructor: Fire Service Program, Jefferson Community College: 1985-1987
- 15 ▪ Instructor, Recruit Training, Louisville Division of Fire : 1969-70

16 **TRAINING AND EDUCATION**

- 17 ▪ Facilitative Leadership Workshop, General Electric Corporation: 1992
- 18 ▪ The Strategic Analysis of Fire Prevention Programs, National Fire Academy: 1991
- 19 ▪ The Strategic Analysis of Fire Department Operations, National Fire Academy: 1990
- 20 ▪ Executive Development, National Fire Academy: 1989
- 21 ▪ Fire Chief in Community-Wide Disaster Exercise Training, Emergency Management
- 22 Institute: 1989
- 23 ▪ Fire Incident Management, National Fire Academy: 1982

- 1 ▪ Bachelor of Science in Commerce Degree, University of Louisville: 1975

2 **AWARDS AND HONORS**

- 3 ▪ Mayor's Commendation, City of Louisville for Innovative Programming: 1998
- 4 ▪ Merit Award, Board of Aldermen, City of Louisville for Outstanding Contributions to
- 5 the Community: 1997
- 6 ▪ Whitney M. Young Service Award for promoting Scouting among inner city youth,
- 7 Boy Scouts of America: 1997
- 8 Program featured in Murray, L. (1997, November-December). Bringing the Camp
- 9 to the Boy, Scouting, p. 25-26, 42.
- 10 ▪ Featured in Coburn, K. (1998, July) Governing, p. 48-52 for innovative leadership
- 11 and management in the fire service.
- 12 ▪ Recognition for Outstanding Service, Kentucky State Fire Marshal: 1986
- 13 ▪ First on Promotion List – District Chief: 1985; Company Commander: 1976
- 14 ▪ Highest Score on Promotional Exam – Fire Apparatus Operator: 1974
- 15 ▪ Two Meritorious Promotions, U.S. Marine Corps: 1970-1972
- 16 ▪ First in Recruit Class, Division of Fire Recruit Training: 1968

17 **MEMBERSHIPS AND AFFILIATIONS**

- 18 ▪ Metro Section, International Association of Fire Chiefs: Current
- 19 ▪ National Fire Protection Association: Current
- 20 ▪ Associate Member, Institute of Fire Engineers: Current
- 21 ▪ Diamond Leader, Commanders Club, Disabled American Veterans: Current
- 22 ▪ Member, Kentucky Governor's Task Force on Black Church Arson Fires: 1996
- 23 ▪ Deputy State of Kentucky Fire Marshall: 1997-1999

1 ▪ Member, YMCA Board of Directors, Louisville, Kentucky: 1997-1999

2 **Q2 What is your current position?**

3 National Training Manager, National Fire Sprinkler Association.

4 **Q3 Describe how a sprinkler system is designed.**

5 A sprinkler system is a specifically designed engineering system that directly
6 matches a protective scheme to a particular type hazard or danger. In this manner, only
7 the sprinkler(s) activated by the fire will discharge. Because the exact size and
8 performance characteristics of any sprinkler are known, it is a fairly easy calculation to
9 determine how much water has been discharged by any or all sprinklers. The system is
10 governed by the available water supply, and the system is designed to be capable of
11 providing adequate protection with the water supply available. It is not uncommon for a
12 water supply to be inadequate in terms of volume and/or pressure, requiring the property
13 owner to install auxiliary equipment, such as pumps and/or tanks to augment the
14 available water supply. The cost for this additional equipment is borne by the owner.

15 Sprinkler systems are consciously designed to assume that a fire will occur in the
16 worst possible location in terms of hydraulics. Therefore the system is designed with the
17 ultimate goal of providing adequate water and pressure to control a fire in the worst
18 possible location by controlling it in a predetermined size area with a particular number
19 of sprinklers activating. It is fairly rare indeed for all of the sprinklers expected to activate
20 to actually do so. The logic behind this purposeful design is that if the system is capable
21 of controlling a fire in the worst possible location, it will easily control a fire in any
22 location presenting less of a challenge.

1 Under the internationally accepted standards used in the design of sprinkler
2 systems, assuming this “worst case” scenario is dictated into the design of the system.
3 This results in a design that maintains a clear requirement for both volume and pressure
4 of water. Since these requirements typically surpass the normal volume and pressure
5 requirements of domestic water needs, larger supply piping and subsequent connections
6 are usually required. Regardless of the need for increased size of piping and/or
7 connections, or auxiliary equipment, all of these costs are the responsibility of the
8 property owner.

9 **Q4 Is there any way to tell how much water has been discharged by a sprinkler**
10 **system that has had one or more heads activated?**

11 There is a fairly simple method by which we can calculate the amount of water
12 from any or all sprinklers activated. Since the standards require that all sprinklers be
13 specifically tested and approved for use in fire protection systems, part of that approval,
14 or “listing” as it is known, includes the exact size of the sprinkler opening. The design of
15 the system includes the design pressures at which the sprinklers are required to operate,
16 the minimum being 7psi. Since we know the opening sizes, and the pressures at any point
17 in the system from the hydraulic calculation information, it is a simple process to
18 determine the flow from any sprinkler on the system, and add up the total discharge from
19 all of the operating sprinklers.

20 In addition, because the standards include requirements for water flow alarms, we
21 can easily determine when the system first activated a sprinkler and when the system was
22 shut down. Using this time line, coupled with the information on the flow from each

1 sprinkler, we can easily determine the total amount of water discharged from the
2 sprinkler system.

3 **Q5 How is a sprinkler head activated?**

4 A sprinkler head is designed with a heat responsive device, or “link”,
5 included in the structure of the sprinkler itself. It is the integrity of this link that actually
6 “keeps the door closed” and keeps water from flowing out of the sprinkler. When the link
7 reaches a specifically predetermined temperature, it will fail, allowing water to discharge
8 from the sprinkler. The water is then discharged from the sprinkler, striking a deflector
9 and breaking into droplets creating an umbrella shape that showers a particular area with
10 water. Each sprinkler is designed to protect its own specific area. If the fire spreads
11 beyond the area of any one sprinkler, then other sprinklers will activate, as needed, in the
12 same fashion. The overall design of the system, as mentioned in response #3 assumes a
13 predetermined number of sprinklers that will be required to protect a specific hazard. As
14 stated earlier, it is highly unusual for all of those sprinklers to actually activate.

15 **Q6 How successful are fire sprinklers at extinguishing fires or holding them in**
16 **check?**

17 The most difficult thing about understanding the effectiveness of sprinkler
18 systems is to accept the simple truths about how successful they actually are. While there
19 have been many different types of studies done on the performance of sprinkler systems
20 under many varying criteria, there seems to be some consistent themes. Overall, the
21 effectiveness of sprinkler systems, depending upon the study and its associated
22 parameters, seems to fall in the 90% or better effectiveness category. Probably the
23 foremost authority on the effectiveness of sprinkler systems in the United States is the

1 National Fire Protection Association. That is the group that historically tracks such
2 statistical information.

3 **Q7 How many sprinkler heads typically activate in a fire?**

4 According to loss statistics used in the insurance industry throughout the United
5 States, approximately 75% of all fires in sprinklered buildings are controlled by 5 or
6 fewer sprinklers. When we increase the number of sprinklers activated to include 10 or
7 fewer, the number of fires controlled moves well in to the 90% range.

8 If we look only at fires in residential occupancies, we find that the vast majority of
9 times, fires are controlled by 2 sprinklers or less.

10 **Q8 How successful are fire sprinklers at saving lives? At limiting property**
11 **damage?**

12 In terms of saving lives and protecting property, I do not believe there is now or
13 ever has been anything to compare with sprinkler systems. Because they are “active”
14 systems, the occupant basically does not have to do anything in order to be protected. In
15 contrast, “passive” systems like smoke detectors, fire alarms, etc. only notify the
16 occupant there is a problem. If the occupant does not actively participate in his/her own
17 escape, they may very well still perish, as we have seen many times throughout our
18 history. All we have to do is look at the history of our own country. There has never been
19 a multiple loss of life (more than two) in a building that was completely protected by a
20 properly installed and properly functioning sprinkler system when fire was the main
21 cause of the incident. We can easily compare that to the innumerable incidents with large
22 life loss in buildings with “passive” systems.

1 There seems to be consensus among various reporting agencies regarding the loss
2 of property that is protected by sprinkler systems. The loss experienced in sprinklered
3 building seems to run approximately 10% of what the loss would be in a building that is
4 not protected by sprinklers. This statistic seems to hold true also for the amount of water
5 used to control a fire in a sprinklered vs. a nonsprinklered building. The amount of water
6 typically used to control a fire in a sprinklered building is about 10% of the water that the
7 Fire Department would use in controlling the same fire in a nonsprinklered building.

8 **Q9 Do charges imposed by water purveyors have a deterrent effect on the**
9 **installation/retention of sprinkler systems?**

10 From a simple business perspective, anything that adds cost to a building has a
11 detrimental effect on the installation/retention of any system used in that building. When
12 we are discussing life safety systems, the installation/retention of such systems is critical
13 to the protection of the inhabitants of the building, visitors to the building, employees in
14 the building, and most certainly the firefighters who will have to enter the building under
15 fire conditions. While the easy approach is to say that any system proven to be invaluable
16 in protecting lives and reducing property loss should be installed in a building, we all
17 know that life is just not that simple. Costs tend to drive business decisions, and sprinkler
18 systems, unfortunately, are no exception. Therefore, charges imposed by water purveyors
19 that directly impact the cost, not just of installing a system, but of continuing it in
20 perpetuity will have a significantly negative impact on the installation/retention of
21 sprinkler systems. We have seen the negative effects of such charges over and over again.

22 **Q10 Please describe any initiatives you are aware of to promote the installation of**
23 **sprinkler systems.**

1 Because I travel extensively throughout the United States and Canada, I have
2 become aware of a plethora of initiatives to promote the installation of sprinkler systems.
3 In nearly every case, these incentives are aimed directly at reducing the costs associated
4 with the installation and maintenance of sprinkler systems. While it would be impossible
5 for me to list all of them, I will reference a select few. It is important to note that
6 incentives are only limited by the creativity and perseverance of local jurisdictions. Each
7 of the major building codes has distinct incentives for the installation of sprinkler systems
8 by offering “trade-offs” in other forms of construction for installing sprinklers. There are
9 two bills currently pending in the United States Congress, one in the House of
10 Representatives and one in the Senate that propose amending the IRS tax code to
11 encourage the installation of sprinkler systems. There are a myriad of incentives
12 elsewhere in the country, such as reductions in property taxes to offset costs, allowances
13 for developers to reduce street widths, decrease the size of water mains, decrease the
14 radius of cul-de-sacs, reduce set back lines, increase distances between fire hydrants,
15 expediting permits by giving the highest priority to buildings designed with sprinkler
16 systems, to name just a select few among many, many others.

17 **Q11 In your professional opinion, what effect will the imposition of charges on**
18 **sprinkler systems by water purveyors have on the success of these initiatives?**

19 It is very important to note that each of the incentives listed in response #10 has
20 been developed with a deep felt sensitivity to reducing the costs of sprinkler systems. As
21 with any successful issue, it takes more than one party to effect change. A major obstacle
22 to the installation/retention of sprinkler systems is cost. Each party to the issue is
23 continually trying to do their part. The sprinkler industry has worked tirelessly to develop

1 products that are designed to meet specific challenges. The industry has also devoted
2 countless resources to improving technology to manufacture less expensive components
3 by utilizing alternative materials, such as plastic and other non metallic substances. Of
4 course all of these technological changes are carried out under the auspices of the
5 accepted standards so as not to compromise performance or effectiveness in any way.
6 Political leaders are doing their part by allowing trade-offs in the adoption of various
7 building codes to offset the cost of sprinkler systems where possible and by initiating
8 various tax incentives to help reduce costs further. All concerned parties have done this
9 because they recognize that to install a system that has proven incomparable in saving
10 lives and reducing property loss must, in reality, still be sensitive to economic issues.
11 They have shown great vision and creativity in developing means to accomplish this task.

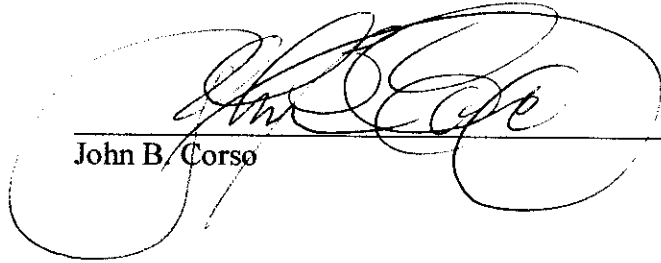
12 It is my professional opinion, as a former fire officer, as a student of the
13 devastating losses that fire has imposed upon the people and property of this country, as
14 an educator and as someone who has personally experienced the incredible differences
15 that sprinklers have made in terms of life safety and property conservation, that any move
16 toward adding costs to these systems is counter productive to the overall safety and well
17 being of a community. Added fees fly in the face of every effort being made by people at
18 all levels throughout this country to try and incorporate a proven life and property
19 protection system that is unparalleled in our history, and the fees imposed by water
20 purveyors are no exception.

21 As closing note, I would like to point out one important issue. Upon retiring from
22 the fire service, I wanted to spend my efforts continuing my professional belief in fire
23 prevention and public education. In comparing all forms of fire protective systems, it is

1 my personal belief that nothing compares to the success of a properly installed and
2 maintained fire sprinkler system.

3 **Q12. Does that conclude your testimony?**

Yes.



John B. Corso

COMMONWEALTH OF KENTUCKY)

COUNTY OF Jefferson)

Subscribed and sworn before me by John B. Corso, this February 27, 2004.



Notary Public

My Commission Expires: 6/14/2005

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

FEB 27 2004

PUBLIC SERVICE
COMMISSION

CASE NO. 2002-00042

In the Matter of:

INVESTIGATION INTO WARREN COUNTY)
WATER DISTRICT'S RATES SCHEDULED FOR)
SERVICES WITH PRIVATE FIRE PROTECTION)
FACILITIES

TESTIMONY OF JACK RECKNER

1 **Q1 State your name, address, and qualifications.**

2 Jack V. Reckner, MA, CFO, 4604 Dove Lake Court, Louisville, KY 40299, (502)297-
3 0113

4 **EDUCATION:**

5 M.A., "Administrative Management", Bowie State University - May 1995

6 Major course work in a degree program in "Public Administration"

7 included "Total Quality Management", personnel administration, organizational

8 development, human resource planning, inter-governmental relations, applied research,

9 policy analysis, public finance and public budgeting. Final GPA of 3.82.

10 B.S., "Fire Science Management", University of Maryland - August 1986.

11 Completed as a part of the "Open Learning for the Fire Service" project

12 administered by the U.S. Fire Administration. Course work included fire administration,

13 fire prevention and education, fire related human behavior, systems analysis, master

14 planning and other management techniques. Final GPA of 3.75

15 A.A., "Fire Protection Technology", Catonsville Comm. College - June 1982.

16 This program involves introductory level course work in supervision, fire

17 prevention, arson detection, industrial fire hazards, hydraulics, as well as chemistry,

18 mathematics social sciences etc. Final GPA of 3.77

19 **NATIONAL CERTIFICATIONS:**

20 Fire Officer IV, (NFPA #1021 - 1992 ed.)

21 Fire Instructor IV, (NFPA #1041 - 1992 ed.)

22 Hazardous Materials Commander, (NFPA #472 - 1994 ed.)

23 Airport Fire Fighter, (NFPA #1003 - 1992 ed.)

1 **ASSOCIATIONS:**

2 "National Fire Protection Association"

3 "Fire Marshals of North America"

4 "Society of Executive Fire Officers"

5 "Intl. Society of Fire Service Instructors"

6 "Fire Department Safety Officers Assoc."

7 "Intl. Assoc. of Fire Chiefs"

8 "Kentucky Fire Chief's Association"

9 "Bldg. Officials and Code Administrators"

10 **EMPLOYMENT:**

11 **1997 - Present:** Fire Chief, Jeffersontown Fire Protection District, Jeffersontown,
12 KY.

13 Administering a progressive combination fire department of 40 career and 20
14 volunteers serving a community of 35,00 residents. Managing rapid growth including
15 construction of a third fire station in 2001. Planning to construct and staff a fourth station
16 is ongoing. Assumed additional duties as representative of Jefferson County Fire Service
17 on planning groups for governmental merger and weapons of mass destruction.

18 **1973 - 1996:** Anne Arundel County Fire Department

19 A modern "all hazards" combined organization operating thirty fire stations
20 staffed by over six hundred career and seven hundred response qualified volunteers. The
21 Department serves a "home rule" community of four hundred twenty thousand and covers
22 four hundred square miles. The Department provides fire, rescue, EMS, Haz-Mat and
23 other related emergency services. County-wide "Emergency Management" is also a Fire

1 Department responsibility.

2 **JANUARY 1994:** Division Commander, Training and Research

3 Responsible for the administration of all training and certification functions for
4 the department to include planning of programs to meet department needs, budgeting,
5 scheduling and long range needs assessment. Additional duties included administration of
6 funding for State programs. Served as research director for the development of new
7 methods and applications. Served as member of Major Incident Management staff and
8 responded as Incident Safety Officer to multiple alarm fires.

9 **AUGUST 1986:** Battalion Chief, Fire Operations

10 As a Field Operations Battalion Chief supervised six to nine stations staffed by a
11 shift of approximately fifty personnel and operating engine companies, truck companies
12 and special service companies such as squads, boats, Haz-Mat etc. Responded to multiple
13 company responses and served as Incident Commander. At greater alarms served in all
14 positions of a model Incident Command System. Served as Battalion Commander
15 responsible for all performance of the assigned battalion. Additional duties included
16 management of a \$1.2 Million Dollar project to totally replace and modernize respiratory
17 protection for the department.

18 **AUGUST 1982:** Captain, Fire Marshal's Office

19 Served as supervisor of Code Compliance. Responsible for a staff of twenty to
20 enforce provisions of both County and State Fire Codes, perform plan review, resolve
21 complaints, initiate code equivalency issues, establish public fire education and initiate
22 legal proceedings. Served as "Special Deputy State Fire Marshal" for the jurisdiction.

23 Served as a Station Commander supervising three shifts of operational personnel

1 in a fire station to include budgeting, training and day to day operations.

2 **DECEMBER 1979:** Lieutenant, Training, FMO, Operations

3 Served in all capacities as a company level officer on Engine Companies, Truck
4 Companies, and Squad companies. Assigned as a Fire Inspector responsible for a staff of
5 two firefighter/inspectors and own inspection responsibilities. Qualified and worked as
6 Fire Dispatch Supervisor on a temporary basis.

7 **OCTOBER 1974:** Instructor, Training

8 Initially trained and certified as an emergency services instructor. Detailed to Fire
9 Academy to develop and deliver first "in-service" program in department history. Served
10 as "Recruit Training Officer" training entry level career firefighters.

11 **1973 - 1974** Fire Fighter/FADO, Engine & Truck Co.'s

12 Served as a Firefighter and "Fire Apparatus Driver/Operator" on both Engine and
13 Truck Companies. Additional duties included Emergency Medical Technician assigned to
14 a basic life support ambulance.

15 **OTHER EMPLOYMENT/EXPERIENCE:**

16 **1994** Maryland Fire and Rescue Institute, College Park, Maryland

17 "Field Instructor/Evaluator". Qualified to instruct and evaluate all State programs
18 in the fire discipline. Responsible to evaluate quality and methodology of other
19 instructors. Have also developed and delivered seminar topics under contract to MFRI on
20 a number of fire service issues.

21 **1986** Faculty, Catonsville Community College, "Fire Protection Technology" Program.

22 Recruited in 1986 to assist the College in a complete re-write of their program.

23 Developed and delivered FPT #106, "Fire Codes and Ordinances" and FPT #111,

1 "Building Codes and Construction". Both courses have been reviewed and accredited by
2 the American Council on Education. Both courses have subsequently been upgraded to
3 reflect code changes to include the 1993 BOCA Building and Fire Codes and the 1994
4 NFPA Life Safety Code.

5 **1972** Firefighter, Dept. of Defense, Fort George G. Meade, Maryland.

6 Upon discharge from U.S. Air Force took a position with FGGM Fire Department
7 and served as firefighter of both structural and aircraft/rescue.

8 **1968** Fire Protection Specialist, United States Air Force

9 Highest responsibility held was Fire Chief, Bolling Air Force Base, Washington
10 D.C. Received Air Force Commendation Medal for efforts during this period. Also
11 served a combat tour as shift supervisor Phan Rang Air Base, Republic of Vietnam.

12 **1966** Technician, Westinghouse Electric Corporation

13 Assigned additional duties as a member of the Industrial Fire Brigade at a major
14 Defense contractor's facility.

15 **1962** Volunteer, Earleigh Heights Volunteer Fire Company.

16 Performed duties of a volunteer firefighter.

17 **COMMENDATIONS:**

18 **1997** "Milestone Achievement Award" for program management during national
19 certification of entire department.

20 **1996** "Unit Citation for Commendable Performance" resulting from a "special" rescue
21 of ice and mud entrapped children.

22 **1980** "Governor's Salute to Excellence" resulting from serving as Incident Commander
23 at multiple rescues from a bridge collapse.

- 1 **1984** "Chief's Award" - Fire Prevention – development of a public fire education
2 program with a robot.
- 3 **1979** "Unit Citation" - Truck #32 - Involving rescues during a flash flood in a
4 residential community.
- 5 **1976** "Exemplary Performance Award" –Training, resulting from development of an in-
6 service program.
- 7 **1975** "Firefighter of Year" - Departmental selection at the request of the Knights of
8 Columbus.

9 **CAREER DEVELOPMENT:**

10 Currently enrolled in the National Fire Academy's "Executive Fire Officer"
11 program with completion expected in the year 2003.

12 2003 Designee of "Chief Fire Officer" - Commission on Chief Fire Officer
13 Designation, International Association of Fire Chiefs.

14 **PERSONAL & PROFESSIONAL REFERENCES:**

15 Available upon request

16 **Q2 As the Kentucky Association of Fire Chiefs been previously involved in the**
17 **issue of charges by water purveyors for fire sprinkler systems?**

18 Yes, as a newly formed organization the Kentucky Association of Fire Chiefs
19 (KAFC) chose fees for fire sprinklers in 1998 as our first State wide issue of importance.
20 Kentucky has historically had a poor ranking nation wide in all measures of fire safety.
21 Fire sprinklers have an unequaled reputation as an instrument of life safety. In a State
22 that consistently ranks in the top ten for fire related deaths, this cannot be ignored. The
23 fire risks in Kentucky are many and complex. Poverty, ignorance and indifference all

1 play a part. Our association looks to fire safety issues such as a broad acceptance of fire
2 sprinklers as the only way to reverse the Commonwealth's deplorable fire safety standing
3 nationwide. To this end, we have diligently sought to remove any barriers to the
4 proliferation of fire sprinklers. Other States have proven that fire sprinklers place no
5 demands upon the community's clean water infrastructure. Water purveyors must not be
6 permitted to use misinformation and misunderstanding to enhance a profit margin at the
7 cost of community fire safety. This is the ultimate goal of the KAFC's continued
8 involvement in this issue.

9 **Q3 What is the KAFC's interest in the current issue of charges on fire sprinkler**
10 **systems between the City of Bowling Green and the Warren County Water District?**

11 In researching the "standby fee" problem in Kentucky, the KAFC, in cooperation
12 with the Public Service Commission, determined that the fees charged by Warren County
13 demonstrated the most illustrative examples of the damaging effect of these kinds of
14 unsupported fees. During early hearings and exchanges of information at the PSC, it was
15 the Warren County representatives that most clearly misrepresented the true nature of and
16 costs associated with fire sprinklers. It is the position of the KAFC that the actions and
17 statements of the Warren County Water District are the most egregious in Kentucky and
18 merit the attention of our organization.

19 **Q4 Do charges on fire sprinkler systems serve as a deterrent or disincentive to**
20 **the voluntary installation of fire sprinkler systems?**

21 In the history of the evolution of fire codes, many different types of occupancies
22 was recognized as benefiting from fire sprinklers as an alternative to other specifications
23 of fire code that chose to voluntarily install fire sprinklers. All fire insurance carriers

1 recognize and credit a properly designed and properly installed fire sprinkler system. It
2 was a simple calculation for the business owner to offset the cost of installing sprinklers
3 with savings on buildings design costs as well as insurance premiums. When the water
4 purveyor imposes a significant monthly fee for which the business owner derives no
5 benefit, there is a real hesitation to incur such an ongoing expense. This becomes
6 particularly dangerous when building design equivalencies are allowed by the building
7 official in anticipation of the presence of a well maintained sprinkler system. Lose the
8 system and by definition one loses the fire safety concept for the entire structure.

9 **Q5 How does this impact firefighter safety?**

10 Simply put the safest building for a firefighter to work in is one that is not on fire
11 or one in which the fire is held in check. Fire sprinklers have an unprecedented safety
12 record. There has never been a multiple loss of life fire in a fully sprinklered building
13 (excluding deliberate terrorist acts). Firefighters know that sprinklered buildings don't
14 burn and/or the fire doesn't spread beyond the incipient stage (98% effective). Structural
15 members do not collapse, rooms do not experience flashover and improved conditions
16 equate to safe firefighter operations. Extended evacuation times mean fewer occupants
17 need rescue. No other fire safety system has the history of success enjoyed by sprinklers
18 and, by extension, the owners, occupants and firefighters served by fire sprinkler systems.

19 **Q6 Please summarize KAFC's position.**

20 The Kentucky Association of Fire Chiefs (KAFC) voted at its annual meeting in Bowling
21 Green Kentucky in 1999 to vigorously oppose any type of routine fee regardless of
22 nomenclature associated with automatic fire sprinklers. The association recognizes that
23 the property owner pays all installation fees and purchases all components of a fire safety

1 system. There is no "cost recovery" element for the water purveyor to pursue. The KAFC
2 further recognizes that infrastructure requirements to support fire sprinklers do not drive
3 water distribution system design. Domestic demand serves that purpose. The KAFC
4 knows that fire sprinklers are the single best protection element for the community and,
5 in fact, reduce a community's need for large volumes of available water for firefighting.
6 Unfortunately, the KAFC also has come to realize that misrepresentation and
7 misinformation frequently clouds what should be a simple reality, that fire sprinklers are
8 inexpensive, simple to install and do not hinder any community's ability to provide
9 potable water for its citizens. Nationwide, the fire service promotes the proliferation of
10 fire sprinklers as a proven and effective means of increasing the Nation's fire safety and
11 reducing the National fire loss experience. The Kentucky Association of Fire Chiefs joins
12 in this worthwhile effort and calls on all agencies of the Commonwealth to join with us.

13 **Q7 Does this conclude your testimony?**

14 Yes


Jack Reckner

COMMONWEALTH OF KENTUCKY)

COUNTY OF Jefferson)

Subscribed and sworn before me by Jack Reckner, this February 26th, 2004.


Notary Public

My Commission Expires:

June 23, 2005

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

In the Matter of:

FEB 27 2004

INVESTIGATION INTO WARREN COUNTY)
WATER DISTRICT'S RATE SCHEDULE FOR)
SERVICES WITH PRIVATE FIRE PROTECTION)
FACILITIES

PUBLIC SERVICE
COMMISSION

CASE NO. 2002-00042

TESTIMONY OF GREG YOUNG

1 **Q1 What is your name and relation to this case?**

2 My name is Greg Young. I live at 928 Lodge Hall Road, Bowling Green, Warren
3 County, Kentucky. I am a member of the Plum Springs Baptist Church.

4 **Q2 Did your congregation plan to construct a new church within the last few**
5 **years?**

6 Yes. We constructed a new church in the Plum Springs community in Warren
7 County, Kentucky in the year 2000.

8 **Q3 What was your role in the project?**

9 I was a member of the Building Committee.

10 **Q4 Did the Building Committee explore the possibility of installing a fire**
11 **sprinkler in the new church and if so why?**

12 The primary reason was for safety of the members and protection of the physical
13 structure. Also there was a significant cost savings with the insurance company on the
14 fire insurance premium.

15 **Q4 Was a sprinkler system in fact installed?**

16 No. While a sprinkler protection was not required by law, we wanted to do it
17 but the installation was cost prohibitive.

18 **Q5 Why did the Building Committee elect not to install a sprinkler system?**

19 The cost of the necessary fire vault required by the Warren County Water District
20 was \$10,000 and there was a monthly flat rate fee of between \$150 and \$200 whether or
21 not any water was used. This was a flat fee to the Warren County Water District for the
22 use of the service.

23 **Q6 Does this conclude your testimony?**

Yes.

Alex Young
GREG YOUNG

COMMONWEALTH OF KENTUCKY)

COUNTY OF Warren)

2004. Subscribed and sworn before me by GREG YOUNG, this February 25th,

Jay Brown
Notary Public

My Commission Expires:

11-24-07

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

FEB 27 2004

PUBLIC SERVICE
COMMISSION

In the Matter of:

INVESTIGATION INTO WARREN COUNTY)
WATER DISTRICT'S RATE SCHEDULE FOR)
SERVICES WITH PRIVATE FIRE PROTECTION)
FACILITIES

CASE NO. 2002-00042

TESTIMONY OF KEN MEREDITH

1 **Q1 State your name.**

2 Ken Meredith, 506 Three Springs Road, Bowling Green, Warren County,
3 Kentucky 42101. I am the owner of the Greenwood Skate Center.

4 **Q2 Is your business equipped with a fire sprinkler system?**

5 Yes.

6 **Q3 Is the sprinkler system required by the building code?**

7 At this time it is not but when it was constructed in 1979 it was required. It was
8 set forth and required by the specifications of the Kentucky Building Code at that time.

9 **Q4 Does the Warren County Water District have the jurisdiction of water**
10 **service for your business?**

11 Yes. In the beginning we simply paid for the amount of water used. We had a 4"
12 water service at that time in 1979. There were no extra charges or fees for the water
13 whether in the sprinkler system or simply domestic service. We only paid for the water
14 we used.

15 **Q5 Were there changes in the water charges by the Warren County Water**
16 **District?**

17 At about 10 years ago an additional meter was installed by the Warren County
18 Water District and a monthly rate of \$185.00 was imposed for the service for the fire
19 protection sprinkler system.

20 **Q6 What is the total of sprinkler related charges you have paid to the Warren**
21 **County Water District?**

22 Assuming the charges were imposed 10 years ago at \$185.00 per month, the total
23 comes to \$22,200.00 for charges that did not represent any water used.

1 **Q7 Have you contacted the Warren County Water District since the order of the**
2 **Public Service Commission regarding sprinkler systems to seek relief.**

3 Yes.

4 **Q8 What were you told by the Warren County Water District?**

5 Joe Liles said the water district was entitled to revenues and the Public Service
6 Commission had required the connections for the meters to measure what water was
7 being used.

8 **Q9 Have you considered the removal of your sprinkler system to obtain relief**
9 **from these charges?**

10 Yes.

11 **Q10 Why do you wish to remove it?**

12 Because if the Warren County Water District fees continue, I will be forced to
13 remove it because of utility cost, competition in the business; it is a prohibitive expense.

14 **Q11 Are you going to remove the sprinkler system?**

15 I intend not to unless the Public Service Commission continues to allow this fee for water
16 not being used.

17 **Q12 Why do you wish to not remove them?**

18 Because of the safety for the customers and people using the facility as well
19 protection of the physical plant.

20 **Q13 How much water does your business use per month?**

21 It uses approximately 11,000 gallons of water per month.

22 **Q14 Has there been a reduction in the billing over the last two to three years?**

1 When the Public Service Commission took the commodity charge off, the bill was
2 reduced approximately \$50.00 per month. However, at the last informal hearing in
3 February, I was told by Joe Liles of the water district that after this hearing the water
4 district intends to re-impose the commodity charge.

5 **Q15 If you built your skating facility today knowing the cost and fees of the**
6 **Water District, would you install a sprinkler system?**


7 No.

8 **Q16 Are you aware of other similar skate centers in the area that are failing or**
9 **refusing to install sprinkler systems due to standby fees or costs unrelated to actual**
10 **water usage?**

11 Yes. A recently built and operating skate center in Owensboro is not sprinkled
12 because of the local utility's stand by fee for water not being used.

13 **Q17 Does this complete your testimony.**

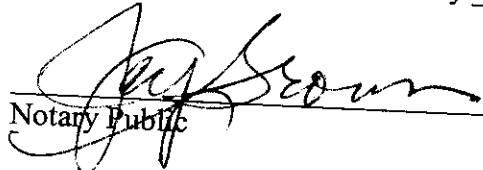
14 Yes.


Ken Meredith

COMMONWEALTH OF KENTUCKY)

COUNTY OF Warren)

Subscribed and sworn before me by Ken Meredith, this February 25th, 2004.


Notary Public

My Commission Expires:

11-24-07

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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FEB 27 2004

PUBLIC SERVICE
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INVESTIGATION INTO WARREN COUNTY)
WATER DISTRICT'S RATE SCHEDULE FOR)
SERVICES WITH PRIVATE FIRE PROTECTION)
FACILITIES

CASE NO. 2002-00042

**EXCERPTS OF VIDEO MATERIALS FILED ON BEHALF OF
THE CITY OF BOWLING GREEN**

Video #1 Plan to Get Out Alive, WCBS, New York, 1988

Shows four primary dangers to safety, health and life.

- 1) Poisonous Smoke
- 2) Visibility
- 3) Heat
- 4) Time

Video #2 Egremont, Massachusetts Fire Test, U.S. Fire Administration, 1990

Shows two comparison fires

- 1) Fire suppressed by sprinkler system
- 2) Fire fought by conventional fire fighting methods –
 “exterior attack”

The approximate viewing time for the video materials is 20 minutes.
Each tape will be made available in its entirety during the public hearing.